UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,917	02/25/2005	Steven Wantling	B22-2522.US	1123

33249 7590 06/13/2008

HEXION SPECIALTY CHEMICALS, INC.
1600 SMITH STREET, P.O. BOX 4500
HOUSTON, TX 77210-4500

EXAMINER	
METZMAIER, DANIEL S	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
06/13/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/525,917	WANTLING ET AL.	
	Examiner	Art Unit	
	Daniel S. Metzmaier	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-12 and 14-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-12 and 14-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-2, 4-12 and 14-23 are pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-2, 4-12 and 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai, US 5,120,355, in view of Luongo, US 6,251,979.

Imai (abstract; column 1, lines 38 et seq ; column 3, lines 54 et seq ; examples and claims) disclose water-repellent compositions for gypsum products employing wax, alkyl phenol hydrocarbon resin, polynaphthalenesulfonates and an polyacrylates.

Imai differs from the claims in the further incorporation of starch and the characterization of the treatment of gypsum rather than lignocellulosic composite products.

Wax emulsions are notoriously well known for imparting water-resistance to a number of substrates including lignocellulosic composite products.
discloses making wallboard.

Luongo (column 11, lines 39-48) discloses perlite containing water-repellent compositions as wax emulsions to impart water-repellency to the gypsum product. Luongo (column 12, lines 31 et seq) discloses employing starch and borate to impart adhesive and bonding properties to the perlite additives.

It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the wax emulsions of '355 on lignocellulosic composite products. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ starch in the '355 emulsions as a conventional additive in the prior art emulsions as a viscosifier and binder.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-2, 4-12 and 14-23 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6,585,820, in view of Song, 6,010,596. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims encompass the patented claimed invention.

6. Claims 1-2, 4-12 and 14-23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-32 and of copending Application No. 10/525,912, in view of Song, 6,010,596. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims differ only in their intended use. Wax emulsions are notoriously well known for imparting water-resistance to a number of substrates including lignocellulosic composite products and gypsum.

Song teaches (see at least claims) lignocellulosic composite products and gypsum products include the same product materials. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the wax emulsions of '912 on gypsum products.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 1-2, 4-12 and 14-23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-27 of copending Application No. 10/528,471, in view of Song, 6,010,596 and Luongo, US 6,251,979. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims differ only in their intended use. Furthermore, see copending claims 15-17. Wax emulsions are notoriously well known for imparting water-resistance to a number of substrates including lignocellulosic composite products and gypsum.

Song teaches (see at least claims) lignocellulosic composite products and gypsum products include the same product materials. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the wax emulsions of '471 on gypsum products.

To the extent the copending claims lack a disclosure of complexed starch, Luongo (column 11, lines 39-48) discloses perlite containing water-repellent compositions as wax emulsions to impart water-repellency to the gypsum product. Luongo (column 12, lines 31 et seq) discloses employing starch and borate to impart adhesive and bonding properties to the perlite additives.

It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ complexed starch in the '471 emulsions as a conventional additive in the prior art emulsions as a viscosifier and binder.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

8. Claims 1-2, 4-12 and 14-23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-40 of copending Application No. 10/541,804, in view of Luongo, US 6,251,979. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims differ in the further incorporation of starch. Wax emulsions are notoriously well known for imparting water-resistance to a number of substrates including lignocellulosic composite products.

The claims are generic to the use of polynaphthalenesulfonic acid and an alkali metal hydroxide. Both are specifically set forth (see at least Tables 1 and 2) as included in the generically claimed compositions and methods.

To the extent the copending claims lack a disclosure of complexed starch, Luongo (column 11, lines 39-48) discloses perlite containing water-repellent compositions as wax emulsions to impart water-repellency to the gypsum product. Luongo (column 12, lines 31 et seq) discloses employing starch and borate to impart adhesive and bonding properties to the perlite additives.

It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ complexed starch in the '471 emulsions as a conventional additive in the prior art emulsions as a viscosifier and binder.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

9. Applicant's arguments filed 22 January 2008 have been fully considered but they are not persuasive.

10. Applicants (Page 8) assert the above Obviousness Double Patenting rejection 10/525912 is not applicable because the intended use to treat gypsum materials and lignocellulosic materials are completely different. This has not been deemed persuasive and clearly the Song reference is evidence of these facts. Regarding the compositions, intended use does not make an otherwise anticipated or obvious composition patentable and the Song reference discloses composites of lignocellulosic and gypsum products. Either the products intended for the gypsum or those intended for the lignocellulose would have been obvious at the time of applicants' invention.

Applicants reference to the starch and wax is not clear since the starch is provided for in both applications and the additional wax would have been obvious as shown by the secondary reference.

11. Applicants (page 9) assert the above Obviousness Double Patenting rejection 10/528471 is not applicable because the intended use to treat gypsum materials and lignocellulosic materials are completely different. This has not been deemed persuasive and clearly the Song reference is evidence of these facts. Regarding the compositions, intended use does not make an otherwise anticipated or obvious composition patentable and the Song reference discloses composites of lignocellulosic and gypsum products. Either the products intended for the gypsum or those intended for the lignocellulose would have been obvious at the time of applicants' invention.

12. Applicants (page 9) assert the above Obviousness Double Patenting rejection 10/541804 is not applicable because the intended use to treat gypsum materials and lignocellulosic materials are completely different. This has not been deemed persuasive and clearly the Song reference is evidence of these facts. Regarding the compositions, intended use does not make an otherwise anticipated or obvious composition patentable and the Song reference discloses composites of lignocellulosic and gypsum products. Either the products intended for the gypsum or those intended for the lignocellulose would have been obvious at the time of applicants' invention.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel S. Metzmaier/
Primary Examiner, Art Unit 1796

DSM